

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 2000034599  
PUBLICATION DATE : 02-02-00

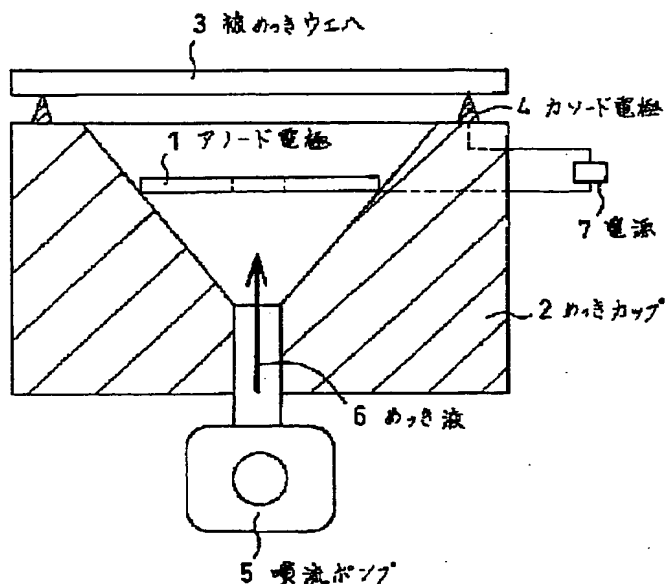
APPLICATION DATE : 14-07-98  
APPLICATION NUMBER : 10198844

APPLICANT : MATSUSHITA ELECTRONICS  
INDUSTRY CORP;

INVENTOR : MATSUMOTO TAKESHI;

INT.CL. : C25D 17/12 C25D 5/08 C25D 17/10  
H01L 21/288

TITLE : ELECTRODE FOR PLATING, PLATING  
DEVICE AND PLATING METHOD



ABSTRACT : PROBLEM TO BE SOLVED: To suppress variation in plating thickness in a body to be plated.

SOLUTION: An electric field between an anode electrode 1 and an wafer 3 to be plated becomes small at the central part of jetting of a plating liq. 6, becomes large at the outer peripheral part and distribution is generated in the electric field, too by generating the distribution of potential which makes the potential low in a central region of the anode electrode 1 and make the potential high in an outer peripheral region at the time of applying the voltage when the central region of the anode electrode 1 is made as an anode part of a low conductive material and the outer peripheral part of the electrode is made as an anode part of a high conductive material. Thus, the movement capacity of ions in the direction of the wafer becomes small compared with that around the jetting of the plating liq. as the electric field is small at the center of the jetting of the plating liq. at a high flow rate. Thus, the quantity of ions reaching the surface of the wafer within a fixed time becomes small at the center of the jetting compared with that in the conventional constitution. Consequently, a uniformly plated layer, in which the plating thickness does not become thick at the center, is formed corresponding to such a quantity distribution of the ions on the wafer.

COPYRIGHT: (C)2000,JPO